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**Castro**(10) **Pub. No.: US 2016/0276021 A1**(43) **Pub. Date: Sep. 22, 2016**(54) **APPARATUSES AND METHODS FOR  
BI-DIRECTIONAL ACCESS OF CROSS-POINT  
ARRAYS**(52) **U.S. Cl.**  
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(US)(57) **ABSTRACT**(72) Inventor: **Hernan A. Castro**, Shingle Springs, CA  
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The disclosed technology generally relates to apparatuses and methods of operating the same, and more particularly to cross point memory arrays and methods of accessing memory cells in a cross point memory array. In one aspect, an apparatus comprises a memory array. The apparatus further comprises a memory controller configured to cause an access operation, where the access operation includes application of a first bias across a memory cell of the memory array for a selection phase of the access operation and application of a second bias, lower in magnitude than the first bias, across the memory cell for an access phase of the access operation. The memory controller is further configured to cause a direction of current flowing through the memory cell to be reversed between the selection phase and the access phase.

